

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend the claims as follows:

Claim 1. (Cancelled)

Claim 2. (Cancelled)

Claim 3. (Cancelled)

Claim 4. (Cancelled)

Claim 5. (Cancelled)

Claim 6. (Cancelled)

Claim 7. (Cancelled)

Claim 8. (Cancelled)

Claim 9. (Cancelled)

Claim 10. (Cancelled)

Claim 11. (Cancelled)

Claim 12. (Cancelled)

Claim 13. (Cancelled)

Claim 14. (Cancelled)

Claim 15. (Cancelled)

Claim 16. (Cancelled)

Claim 17. (Cancelled)

Claim 18. (Currently amended) A method for detecting gene expression of polypeptide X comprising expressing a gene encoding a recombinant fusion protein comprising glucose dehydrogenase linked with polypeptide X and detecting the presence of said linked glucose dehydrogenase, wherein the said presence of glucose dehydrogenase correlates with gene expression of polypeptide X.

Claim 19. (Previously Presented) The method of claim 18, wherein glucose dehydrogenase is detected with an antibody that recognizes an epitope of glucose dehydrogenase.

Claim 20. (Previously Presented) The method of claim 18, wherein glucose dehydrogenase is detected by assaying for glucose dehydrogenase activity.

Claim 21. (Previously Presented) The method of claim 18, wherein glucose dehydrogenase is detected by i) fractionating the fusion protein by gel electrophoresis and ii) assaying for glucose dehydrogenase activity in the gel by incubating the gel in a solution containing a tetrazolium salt.

Claim 22. (Previously Presented) The method of claim 21, wherein said assay for glucose dehydrogenase activity produces a color.

Claim 23. (Previously Presented) The method of claim 22, wherein a tetrazolium salt is used to assay for glucose dehydrogenase activity.

Claim 24. (Previously Presented) The method of claim 23, wherein said tetrazolium salt is iodophenyl-2-nitrophenyl-phenyltetrazolium or nitro blue tetrazolium.

Claim 25. (Previously Presented) The method of claim 22, wherein said color reaction for the detection of glucose dehydrogenase activity is followed by protein staining.

Claim 26. (Previously Presented) The method of claim 25, wherein said protein stain is a silver stain or a coomassie blue stain.

Claim 27. (Withdrawn) A method for detecting a polypeptide X/polypeptide X interaction comprising expressing a recombinant fusion protein comprising glucose dehydrogenase linked with polypeptide X, contacting the expressed fusion protein with polypeptide X and detecting the polypeptide X/polypeptide X homodimer.

Claim 28. (Withdrawn) A method for detecting a polypeptide X/polypeptide Y interaction comprising expressing a recombinant fusion protein comprising glucose dehydrogenase linked with polypeptide X, contacting the expressed fusion protein with polypeptide Y and detecting the polypeptide X/polypeptide Y heterodimer.

Claim 29. (Withdrawn) A method for determining optimal protein expression conditions for polypeptide X comprising expressing, under specified expression conditions, a recombinant fusion protein comprising glucose dehydrogenase and polypeptide X and detecting glucose dehydrogenase.

Claim 30. (Withdrawn) The method of claim 29 wherein glucose dehydrogenase is detected with an antibody that recognizes an epitope of glucose dehydrogenase, wherein expression levels of glucose dehydrogenase correlate to expression levels of polypeptide X.

Claim 31. (Withdrawn) The method of claim 29 wherein glucose dehydrogenase is detected by assaying for glucose dehydrogenase activity, wherein levels of glucose dehydrogenase activity correlate to expression levels of polypeptide X.

Claim 32. (Withdrawn) The method of claim 31, wherein glucose dehydrogenase is detected by i) fractionating the fusion protein by gel electrophoresis and ii) assaying for glucose dehydrogenase activity in the gel by incubating the gel in a solution containing a tetrazolium salt.

Claim 33. (Withdrawn) The method of claim 32, wherein said assay for glucose dehydrogenase activity produces a color.

Claim 34. (Withdrawn) The method of claim 33, wherein a tetrazolium salt is used to assay for glucose dehydrogenase activity.

Claim 35. (Withdrawn) The method of claim 34, wherein said tetrazolium salt is iodophenylnotrophenyl-phenyltetrazolium or nitro blue tetrazolium.

Claim 36. (Withdrawn) The method of claim 33, wherein said color reaction for the detection of glucose dehydrogenase activity is followed by protein staining.

Claim 37. (Withdrawn) The method of claim 36, wherein said protein staining is silver staining or coomassie blue staining.

Claim 38. (Withdrawn) A method for increasing correct protein folding for protein X comprising expressing a recombinant fusion protein comprising glucose dehydrogenase and protein X, wherein correct protein X folding is higher in said fusion protein relative to protein X alone.

Claim 39. (Withdrawn) A method for increasing the solubility of protein X comprising expressing a recombinant fusion protein comprising glucose dehydrogenase and protein X, wherein the solubility of protein X is higher in said fusion protein relative to protein X alone.